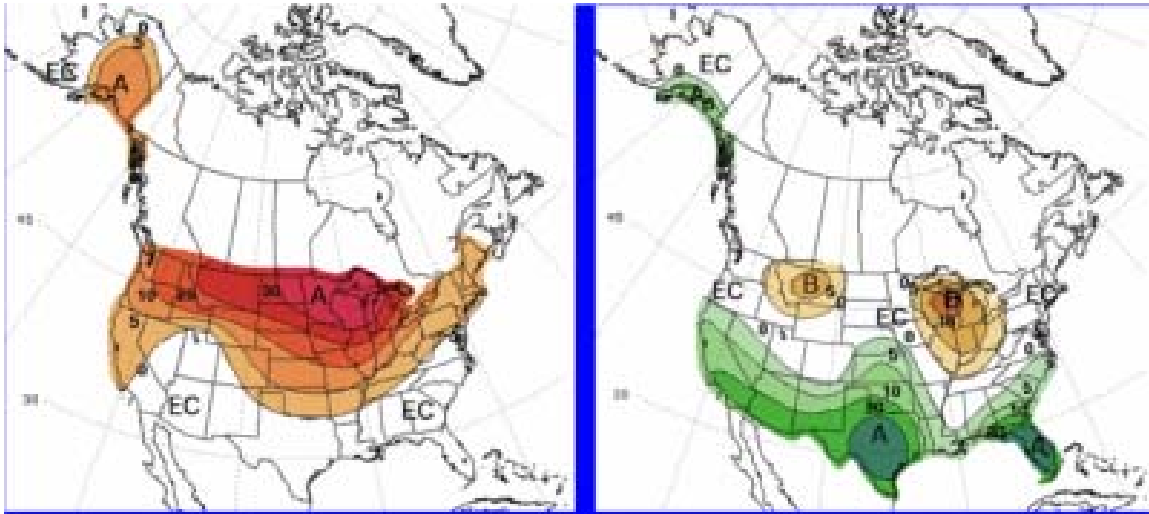


Pacific Northwest Area Annual Fire Report – 2003

Setting the Stage for the 2003 Fire Season

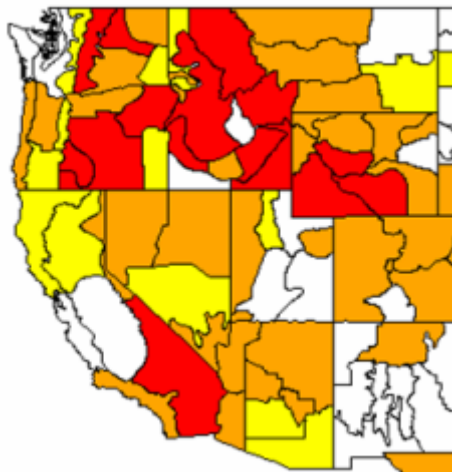
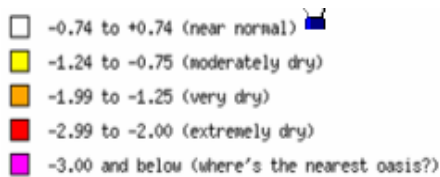
1. Drought

The 2003 fire season began to show early signs of potential severity even before the year began. A partial explanation may lie in the El Nino/Southern Oscillation (ENSO) that was then maturing in the tropical Pacific. The images below illustrate the predicted precipitation (right) and temperatures (left) consistent with an El Nino for the winter of 2002-2003.

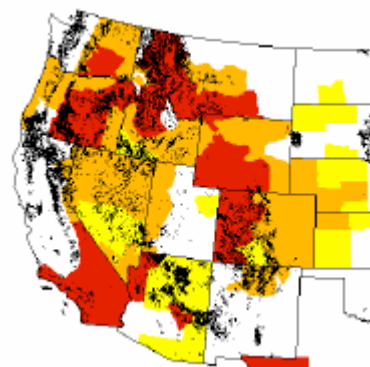


These predictions for above-normal temperatures and equal chances of a wet or dry winter gave no promise of alleviating the on-going drought conditions in the Pacific Northwest. These long-term drought conditions are best illustrated by the Standardized Precipitation Index (SPI). The example below shows the SPI for the **36 month** period ending in November 2002.

The values at left are standard deviations from mean rainfall for the period and climate zone. Areas in **Red** are between their 90th and 99th percentiles, which is extremely dry.

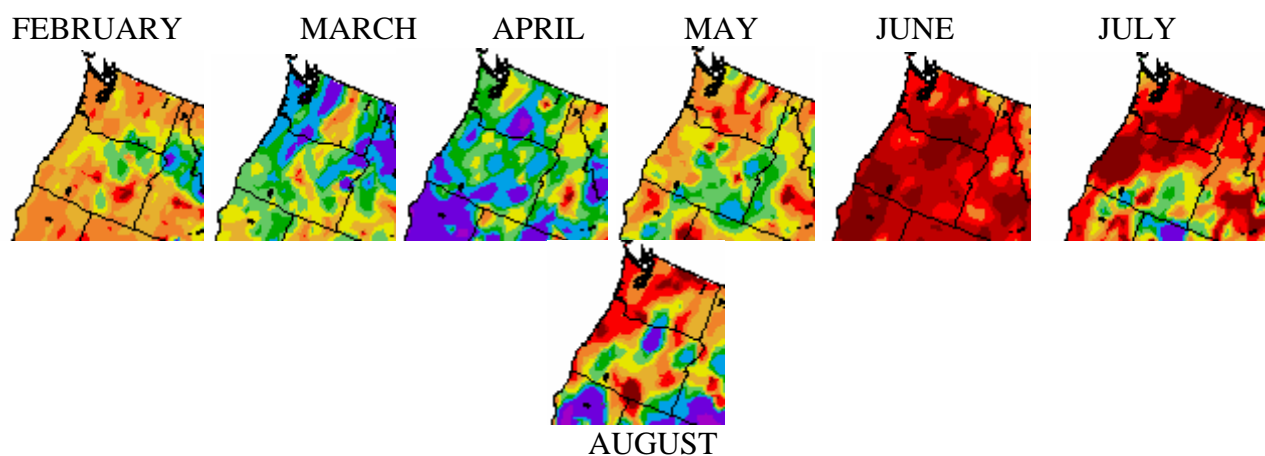


The map (right) features Fire Regime Condition Classes overlaying the SPI. Map colors of yellow, orange and red represent areas with 1-2(yellow), 3-4(orange) and 5-6(red) years of overall very dry conditions, respectively. Very dry is defined as the top 12% or less of dry years since 1895. The black points on the map show locations of current Condition Class 3 lands *for all fire regimes*. Condition Class 3 lands have fire regimes that have been substantially altered from their historic range. Locations where Condition Class 3 points intersect areas of long-term dry conditions highlight potential problematic areas for longer term issues, such as tree mortality, bug kill and vegetation stress related to drought. Particularly notable areas are Arizona, western Colorado, Idaho, central and northeastern Oregon, western Montana and Nevada¹. These are also areas that have experienced the most extreme fire behavior in recent years. In 2000 and 2003, Montana and Idaho had their worst season in 100 years. In 2002, Oregon, Colorado and Arizona all experienced the largest fires in their recent history. In 2003, southern California had its worst siege of fire in its history.



2. Precipitation and Soil Moisture.

The map images below are color-coded to show the percentage of normal rainfall received in Oregon and Washington from February through August 2003. Note that both western Washington and central Washington had just one month in six (March) when they received above average precipitation. (And this in areas that had shown extreme dryness over the last 36 months). At the other extreme, note that SE Oregon had only one month in six (June) when some portion *did not* receive at least average rainfall. Models developed at Scripps Institute dealing with higher elevations with heavier fuels put the greatest weight on the most recent moisture anomalies². This seems to have verified in 2003 with the intense fire activity on the western slopes of the Washington Cascades and on the Olympic Peninsula.

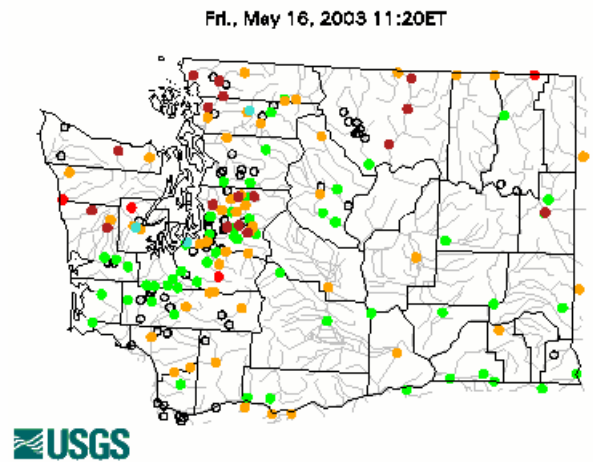
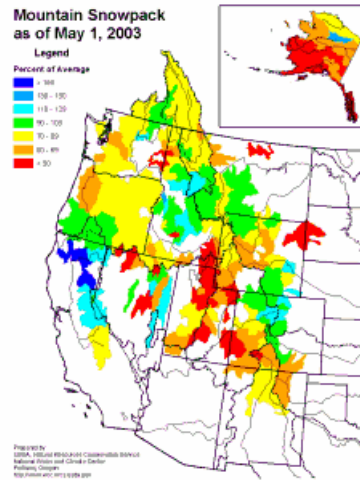


¹ Drought/Fire/Ecosystem Health Problems. Brown et al. 2003

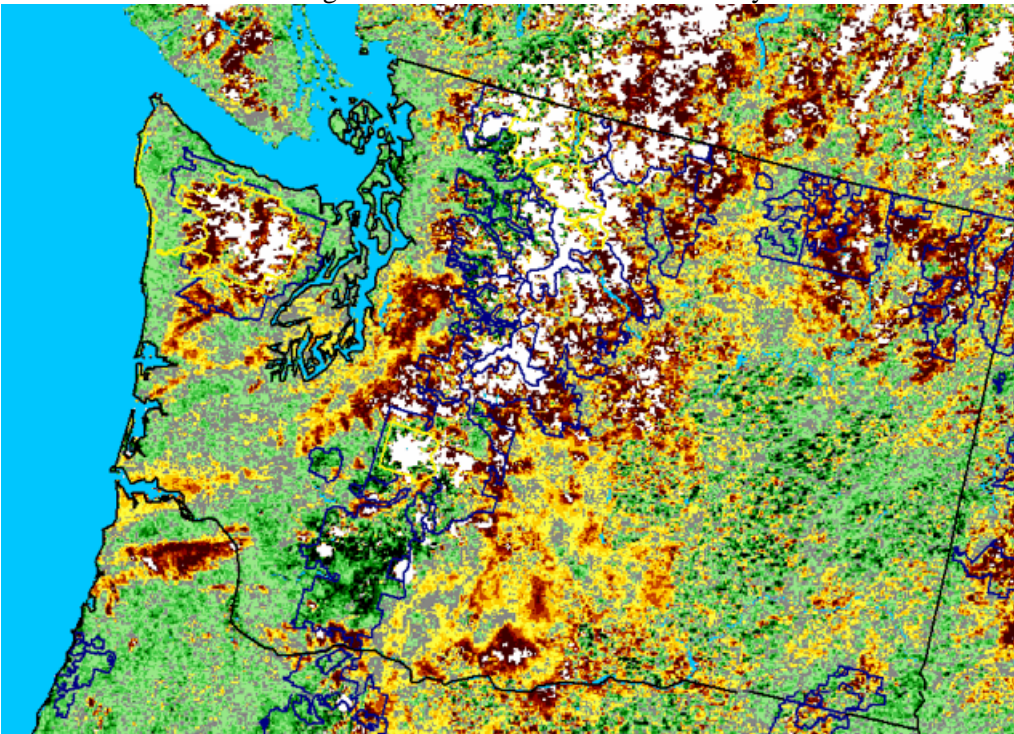
² Statistical Forecasts of the 2003 Western Wildfire Season using Canonical Correlation Analysis . Westerling, et al. 2003

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Record low snowpack (left) in much of the Cascades also contributed to keeping soils dry. This in turn led to record low stream flows, particularly in the Washington Cascades, as indicated by the red dots on the map at right.

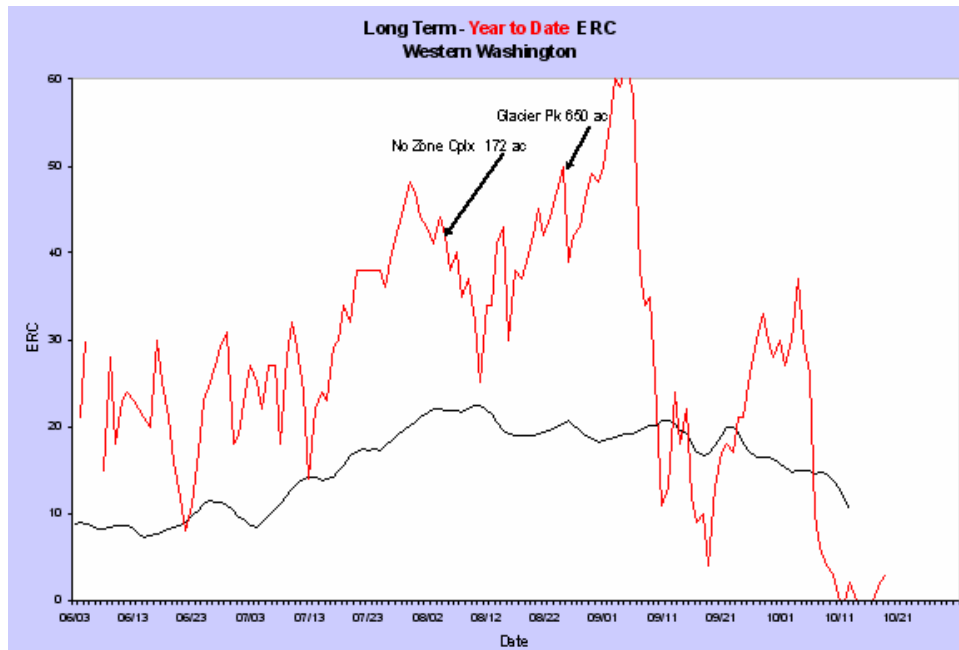


The soil conditions are reflected in the robustness of live fuels. The dryness in the Olympics and on both slopes of the Washington Cascades shown in the NDVI image below reflects departure from average greenness. While greenness imagery can be difficult to interpret, the subsequent fire severity experienced in the Okanogan-Wenatchee and west slope of the Cascades areas throughout the fire season reflected the dry live fuel conditions depicted here.

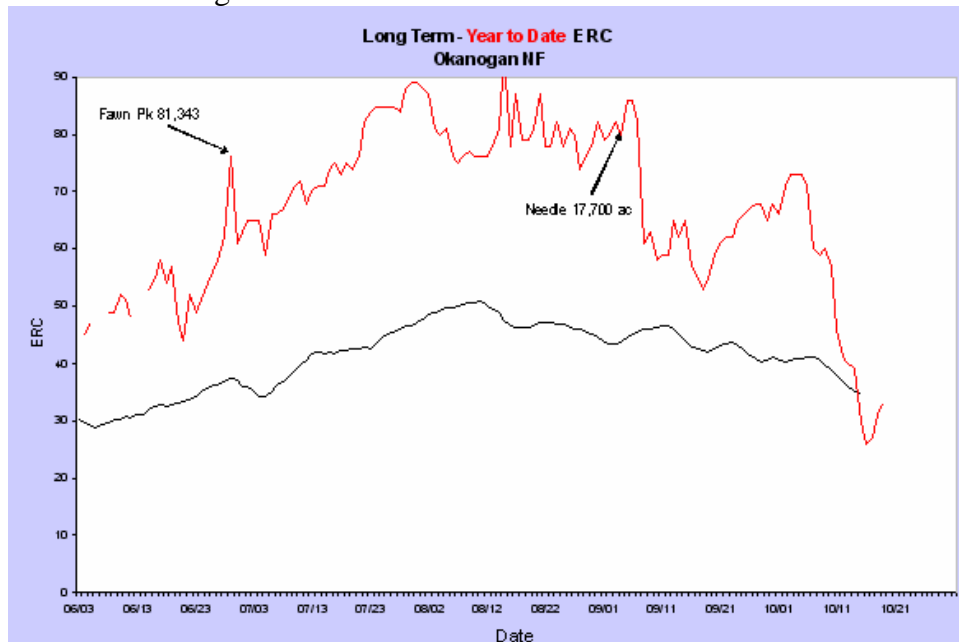


3. Severity

Energy Release Component (ERC) has long been used as a severity index because of its excellent representation of seasonal drying. The ERC estimates the amount of heat that will be released at the front of a fire, and is heavily influenced by the 100 and 1000 hr dead fuel moisture. These large fuels contribute to fireline intensity, including flame lengths and intense radiant heat, smoke plume development, and long range spotting. As the time series graph below illustrates, western Washington began seeing much above-average ERCs in early July. By late July, daily new record highs were being set.

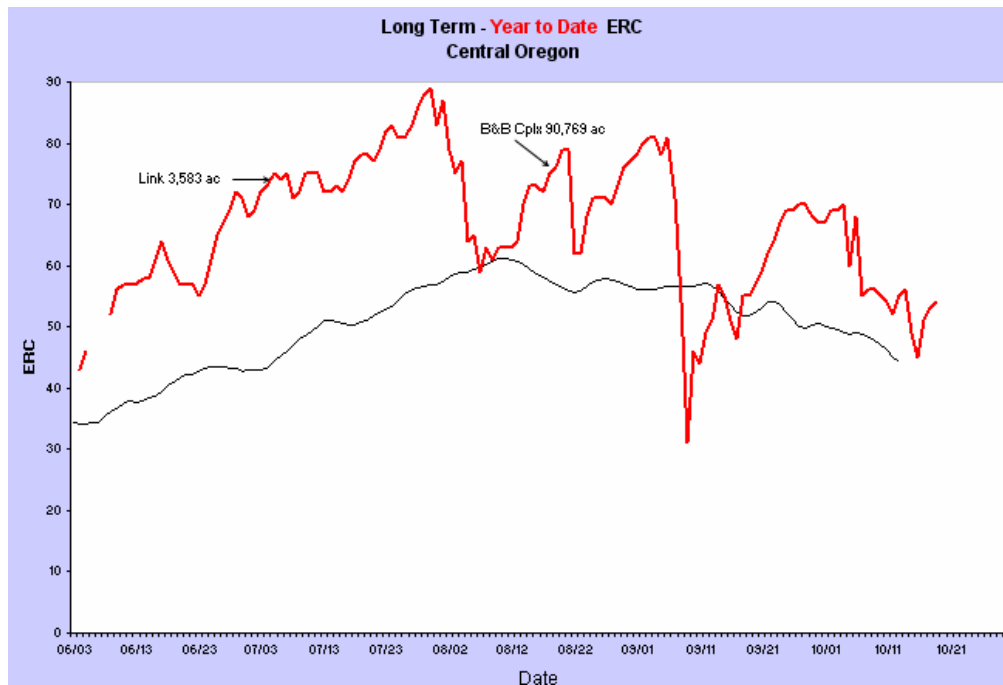


Severity indexes on the east side of the Cascades in Washington were also at record highs for much of the summer. The long term drying in this area was making itself known early as fires like Fawn Lake spread rapidly in late June while exhibiting extreme fire behavior.

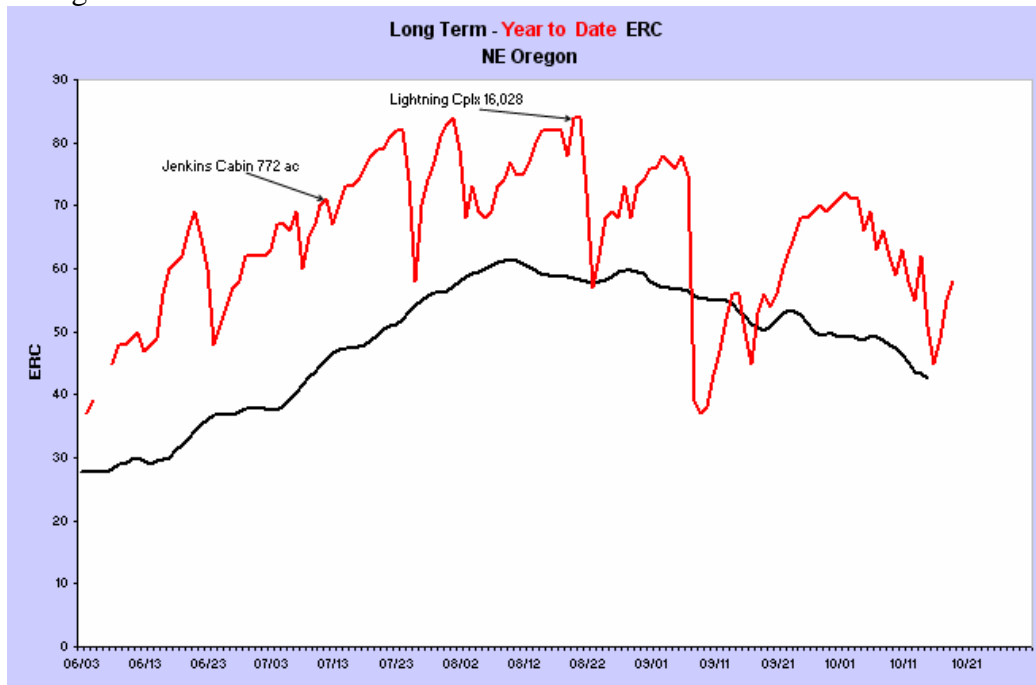


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In Oregon, severity graphs also showed new records being set daily in central Oregon



as well as in NE Oregon.



Given the severity conditions of 2003, the truly amazing feature was the average-ness of the season in terms of both fire starts and acres burned.

4. Lightning

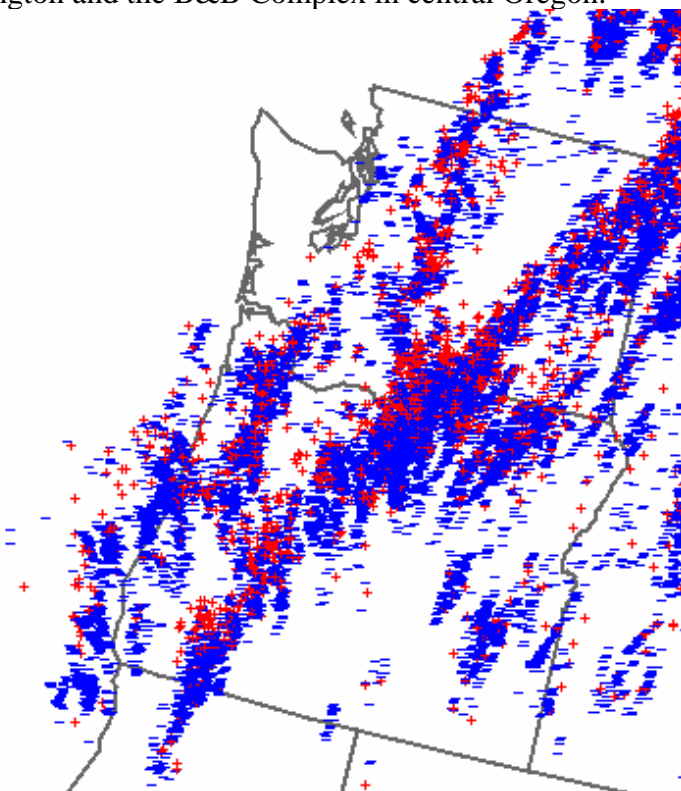
The best predictor of large fires in the PNW is...fires. In other words, our fire problem is the result of mass ignitions from lightning episodes.

Analysis has indicated the probabilities of a lightning episode ($P(\text{episode})$) and is shown in the table below.

The probability of multiple episodes in any month ($P(\text{multiEpi})$) is also shown. Lastly, looking at all lightning episode dates, the table shows the date around which lightning events have clustered over a 17-year period.

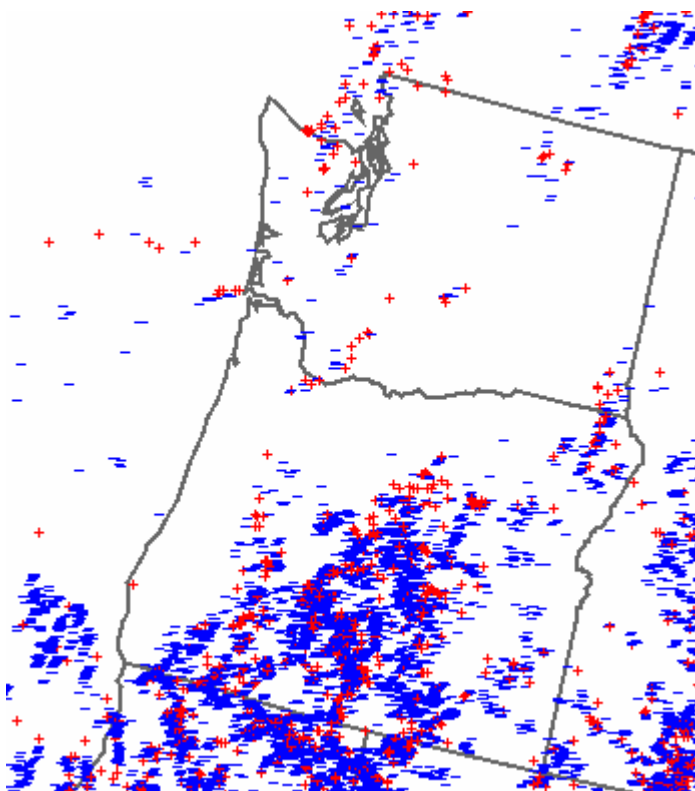
	May	June	July	August	Sept	Oct
$P(\text{episode})$	0%	12%	71%	71%	35%	0%
$P(\text{multiEpi})$	0%	6%	18%	35%	0%	0%
CenterDate		6/21	7/24	8/6, 8/16	9/5	

The map below shows the lightning activity centering around the 8/6 date. This lightning “bust” resulted in at least 8 large fires immediately, mostly in the Mt Baker-Snoqualmie – Okanogan-Wenatchee areas. These included Mt Rainier Complex, Maple, NOCA Complex, Glacier Peak Complex and others. However, there were several other fires that began at this time but which did not become large fires until sometime later, including Needles in Washington and the B&B Complex in central Oregon.



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The map below shows the lightning activity centering around the 9/5 date. Although most activity was in Oregon, starting such fires as the Lightning Complex, 9-05 Complex and Bull Springs 2, a few strikes in Washington started several remote, stubborn fires that created suppression problems throughout the month. These included Bull Dog, Griff, and Isabel.

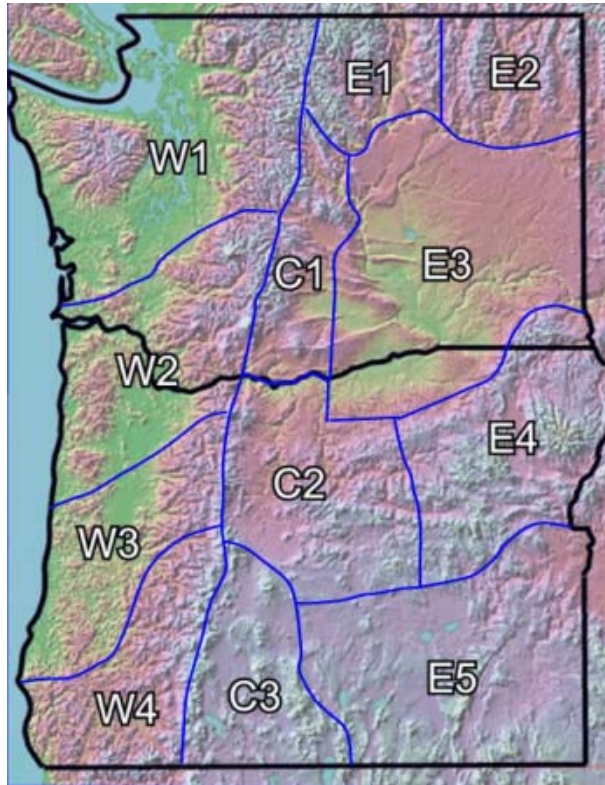


The 2003 fire season was partially consistent with the models developed at Scripps. There was a very active season at the higher elevations and among heavy fuels. However, the grass and range lands of SE Oregon saw very little fire activity while those of eastern Washington were more active.

5. Fire Danger Forecasting

For the second fire season in a row, the Predictive Services section of NWCC made daily forecasts of the potential for large fire development in the Pacific Northwest. The bases of these forecasts are 1) designated predictive service areas (PSAs), 2) networks of Remote Automated Weather Stations (RAWS) within each PSA, 3) a definition of large fires based on the frequency of occurrence, and severity variables related to large fires. The output was posted daily on the NWCC website, on the daily AM Report, and in a separate mailing to fire staff and fire management officers around the Area.

Shown below are the Predictive Service Areas in the Pacific Northwest.



The PSAs are areas with similar climate features that should result in similar fuels characteristics. Remote weather stations (RAWS) are selected in order to give unique weather observations without redundancy, and number between 4 and 10 stations per PSA. Afternoon minimum relative humidity was used as the climatic variable with the best association to fire occurrence and growth. The 95th percentile fire size for each PSA was selected as the “large” fire. ERC for Fuel Model G and 100 hour dead fuel moisture were selected as the best National Fire Danger Rating System (NFDRS) outputs severity indexes

6. Forecast Outputs

Gridded weather data taken from climate models was put into algorithms that generated ERCs and 100 hour fuel moistures for up to 10 days into the future. Each day was coded green (low), yellow (average) or red (high) based on its potential for large fire development. A crucial concept is that of weather triggers. A weather trigger, such as atmospheric instability or dry lightning would substantially increase the potential for a large fire.

Predicted 10-Day Large Fire Potential by Area											
	21	22	23	24	25	26	27	28	29	30	31
	yd	td	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr
PSA W1											
PSA W2	Insufficient weather observations available in WIMS										
PSA W3											
PSA W4											
PSA C1											
PSA C2											
PSA C3											
PSA E1											
PSA E2											
PSA E3	Insufficient weather observations available in WIMS										
PSA E4											
PSA E5											
Legend:		Very dry conditions related to a <u>moderate</u> potential for large fires in absence of a weather trigger and a <u>high</u> potential when occurring in conjunction with certain weather triggers.									
		Seasonal dryness related to a <u>low</u> potential for large fires in absence of a weather trigger and a <u>moderate</u> to <u>high</u> potential when occurring with certain weather triggers.									
		Moist conditions with little or no threat of large fires									

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7. Large Fires and Forecasting Validation

Severity forecasting, using the tools sited above, gave very good forecasts concerning the potential for large fires to develop in the Pacific Northwest. For example, note that all large fire days were on either yellow or red days, and no large fires occurred on green days.

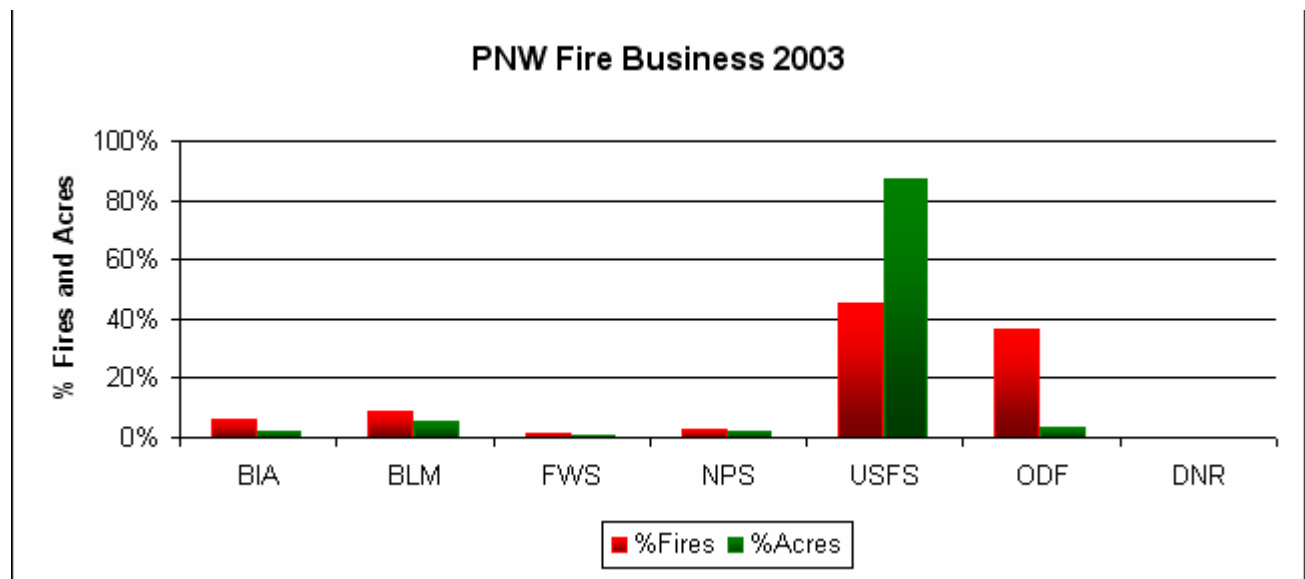
StartDate	Unit	PSA	Incident	Fire Day Observed Severity	Fire Day Predicted Severity	3_Day Predicted Severity	5_Day Predicted Severity	7_Day Predicted Severity
6/27	WA-YAA	E3	AHTANUM RIDGE	Red	Red	Red	nd	nd
6/27	OR-ORS	W3	SULPHUR CREEK	Red	Red	Red	nd	Yellow
6/28	OR-DEF	C3	DAVIS	Red	Red	Yellow	Red	Yellow
6/29	WA-OWF	E1	FAWN PEAK	Red	Red	Yellow	Yellow	Yellow
6/30	WA-NES	E1	NINE MILE	Red	nd	Red	Yellow	Green
7/4	WA-COA	E2	PADDLE	Red	Yellow	Yellow	Yellow	Yellow
7/4	WA-SPA	E2	RATTLESNAKE	Red	Yellow	Yellow	Yellow	Yellow
7/5	OR-DEF	C2	LINK	Red	Red	Red	Red	Red
7/7	OR-ORS	W4	POWELL CR	Red	nd	Green	Yellow	Green
7/10	WA-SES	C1	OLD NACHES	Red	Red	nd	nd	Yellow
7/11	WA-SES	C1	MIDDLE FORK	Red	Red	Red	nd	Green
7/12	OR-ORS	E4	JENKINS CABIN	Red	Red	Red	nd	nd
7/13	OR-WIF	W3	CLARK	Yellow	Yellow	Yellow	Yellow	nd
7/13	WA-WFS	C1	AVERY SHOOTING RANGE	Red	Yellow	Yellow	Yellow	nd
7/16	WA-SPD	E3	CRESTVIEW	Red	Red	nd	Yellow	Red
7/16	WA-WFS	E2	McGINNIS	Red	Red	Yellow	Yellow	Yellow
7/18	WA-COA	E2	18 FIRE	Red	Red	Red	Red	Yellow
7/23	OR-DEF	C3	KELSAY	Red	Red	Red	Yellow	Yellow
7/27	OR-UPF	W4	HATTEN RD	Red	nd	Red	Red	Red
7/27	WA-SPD	E3	AYERS GULCH	nd	nd	Red	Red	nd
7/28	WA-WAS	E4	MAPLE	Red	nd	Red	Red	Red
8/5	WA-OWF	C1	JUNIPER DUNES	nd	Yellow	nd	Yellow	Yellow
8/6	WA-SPD	E3	*NORTH ZONE COMPLEX	nd	Yellow	nd	Yellow	Yellow
8/6	WA-MSF	W1	BLACK CANYON	Red	Red	nd	Yellow	Yellow
8/10	WA-NES	E2	LOST LAKE	Yellow	nd	Yellow	Yellow	nd
8/11	WA-GPF	W2	CLOVER CREEK	nd	Red	Yellow	Yellow	Green
8/15	OR-ORS	C3	HAGELSTEIN	Red	Red	Red	Yellow	nd
8/16	OR-WNF	C3	TOGO	Yellow	Red	Red	Red	nd
8/16	WA-COF	E2	B&B COMPLEX	Red	Red	Red	Red	Red
8/19	OR-DEF	C2		Red	Red	Red	Red	Red

Pacific Northwest Area Annual Fire Report – 2003

A Summary of Fire Season Activity

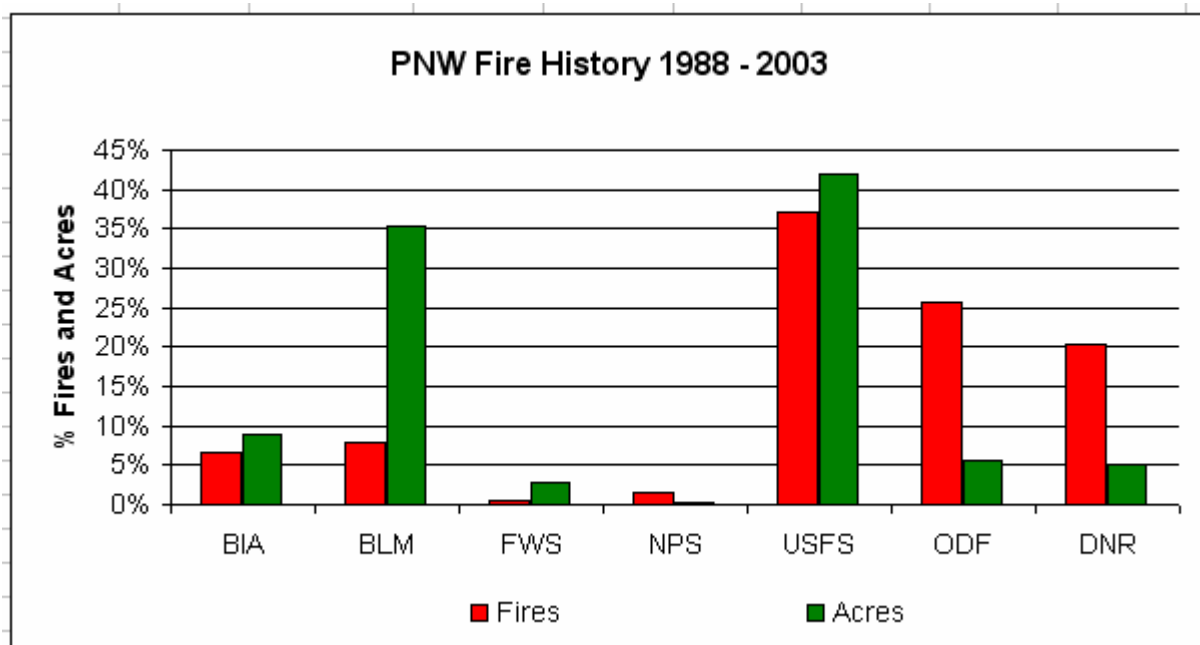
Fire Activity – 2003

PNW Fire History				
2003				
Agency	Fires	Acres	%Fires	%Acres
BIA	188	5,262	6%	2%
BLM	275	17,084	9%	6%
FWS	39	1,293	1%	0%
NPS	78	5,287	2%	2%
USFS	1,447	263,970	45%	87%
ODF	1,178	9,346	37%	3%
DNR	0	0	0%	0%
Totals	3,205	302,242	100%	100%



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ALL FIRE ACTIVITY_PNW 2002 VS 2003 and 10 YEAR AVERAGE										
	FIRES 2002	ACRES 2002	FIRES 2003	ACRES 2003	10YR AVGFIRES	10YR AVG ACRES	03 AS % OF 02 FIRES*	03 AS % OF 02 ACRES	03 AS % OF 10YR AVG FIRES*	03 AS % OF 10YR AVG ACRES
OR_BIA	92	3,042	130	3,821	101	18,518	141%	126%	128%	21%
WA_BIA	178	11,817	58	1,441	188	23,463	33%	12%	31%	6%
OR_BLM	362	173,666	266	7,139	322	111,512	73%	4%	83%	6%
WA_BLM	18	7,829	9	9,945	16	42,474	50%	127%	56%	23%
OR_FWS	18	2,102	9	444	13	5,899	50%	21%	68%	8%
WA_FWS	21	471	30	849	18	8,761	143%	180%	171%	10%
OR_NPS	22	243	13	211	21	9	59%	87%	63%	2344%
WA_NPS	42	215	65	5,076	48	563	155%	2361%	136%	902%
OR_USFS	1,241	722,772	1,133	13,956	1,194	125,463	91%	19%	95%	112%
WA_USFS	322	50,164	314	124,014	307	37,495	98%	247%	102%	331%
OR_ORS	1,175	98,052	1,178	9,346	1,052	23,187	100%	10%	112%	40%
WA_WAS	853	10,048	0	0	794	18,188	0%	0%	0%	0%
ALL_TOTAL	4,344	1,080,421	3,205	302,242	4,073	415,530	74%	28%	79%	73%
OR_TOTAL	2,910	999,877	2,729	160,917	2,702	284,757	94%	16%	101%	57%
WA_TOTAL	1,434	80,544	476	141,325	1,371	130,943	33%	175%	35%	108%
Totals DO NOT include acres outside of those reported to NWCC (county, rural, unprotected,etc)										
Fires and acres are from the Sit Report										
*Year to Date as % of 2002 Fires										
*Year to Date as % of 10 Year Average Fires										



Pacific Northwest Area Annual Fire Report – 2003

Fires by Class Size

Summary

Number of Fires by Class Size - Agency Lands Only							
Agency	Unit	SIZE CLASS					Total
		ABC	D	E	F	G	
BIA	WA-COA						0
BIA	WA-OPA	0	0	0	0	0	0
BIA	WA-PSA	6	0	0	0	0	6
BIA	WA-SPA						0
BIA	WA-QNT	1	0	0	0	0	1
BIA	OR-WSA	129	0	0	1	0	130
BIA	WA-YAA						72
BIA TOTAL		136	0	0	1	0	137
BLM	OR-BUD	32	1	0	0	0	33
BLM	OR-CBD	7	0	0	0	0	7
BLM	OR-EUD	20	0	0	0	0	20
BLM	OR-LAD	23	0	0	0	0	23
BLM	OR-MED	52	1	0	0	0	53
BLM	OR-PRD	75	2	1	0	0	78
BLM	OR-ROD	6	0	0	0	0	6
BLM	OR-SAD	16	0	0	0	0	16
BLM	WA-SPD	4	0	2	1	2	9
BLM	OR-VAD	32	3	2	1	0	38
BLM TOTAL		267	7	5	2	2	283
FWS	NV_SHR	2	0	0	0	0	2
FWS	OR_SHR	1	0	0	0	0	1
FWS	OR_MKR	2	0	0	0	0	2
FWS	OR_UMR	3	0	0	0	0	3
FWS	OR_WMR	0	0	0	0	0	0
FWS	OR-LKR	0	0	1	0	0	1
FWS	WA-CBR	3	1	0	0	0	4
FWS	WA-HFR	8	0	1	0	0	9
FWS	WA_LPR	4	0	0	0	0	4
FWS	WA_MNR	6	0	0	0	0	6
FWS	WA_TBR	5	0	0	0	0	5
FWS	WA_TPR	1	0	0	0	0	1
FWS	WA-UMR	1	0	0	0	0	1
FWS TOTAL		36	1	2	0	0	39
NPS	WA-CLP	12	1	0	0	0	13
NPS	WA-NCP	24	1	0	2	0	27
NPS	WA-MRP	6	0	1	0	0	7
NPS	WA-OLP	15	0	1	0	0	16
NPS	OR-JDP	0	0	0	0	0	0
NPS	WA-LRP	9	0	0	0	0	9
NPS TOTAL		66	2	2	2	0	72

Pacific Northwest Area Annual Fire Report – 2003
Fires by Class Size Summary

Number of Fires by Class Size - Agency Lands Only							
Agency	Unit	SIZE CLASS					Total
		ABC	D	E	F	G	
USFS	OR-BFZ	56	0	0	0	0	56
USFS	OR-CGF	7	1	0	0	0	8
USFS	OR-DEF	166	0	0	2	3	171
USFS	OR-FRF	78	0	0	0	0	78
USFS	OR-MAF	190	1	0	0	0	191
USFS	OR-MHF	70	0	0	0	0	70
USFS	OR-OCF	67	0	0	0	0	67
USFS	OR-RRF	60	0	0	0	0	60
USFS	OR-SIF	45	0	0	0	0	45
USFS	OR-SUF	18	0	0	0	0	18
USFS	OR_UMF	60	0	0	1	0	61
USFS	WA_UMF	28	1	0	0	0	29
USFS	OR-UPF	37	0	0	1	0	38
USFS	OR-WIF	114	0	0	1	1	116
USFS	OR-WWF	101	2	1	1	1	106
USFS	OR-WNF	69	0	1	0	0	70
USFS	WA-COF	44	0	0	0	1	45
USFS	WA-GPF	35	1	1	0	0	37
USFS	WA-MSF	74	1	1	1	0	77
USFS	WA-OWF	122	2	2	4	2	132
USFS	WA-OLF	14	0	0	0	0	14
USFS TOTAL		1,455	9	6	11	8	1,489
State of Oregon	OR-ORS	1,159	6	12	0	1	1,178
State of Washington	WA-WAS						
STATESTOTAL		1,159	6	12	0	1	1,178
GRAND TOTAL		3,062	23	25	14	11	3,135

Pacific Northwest Area Annual Fire Report – 2003

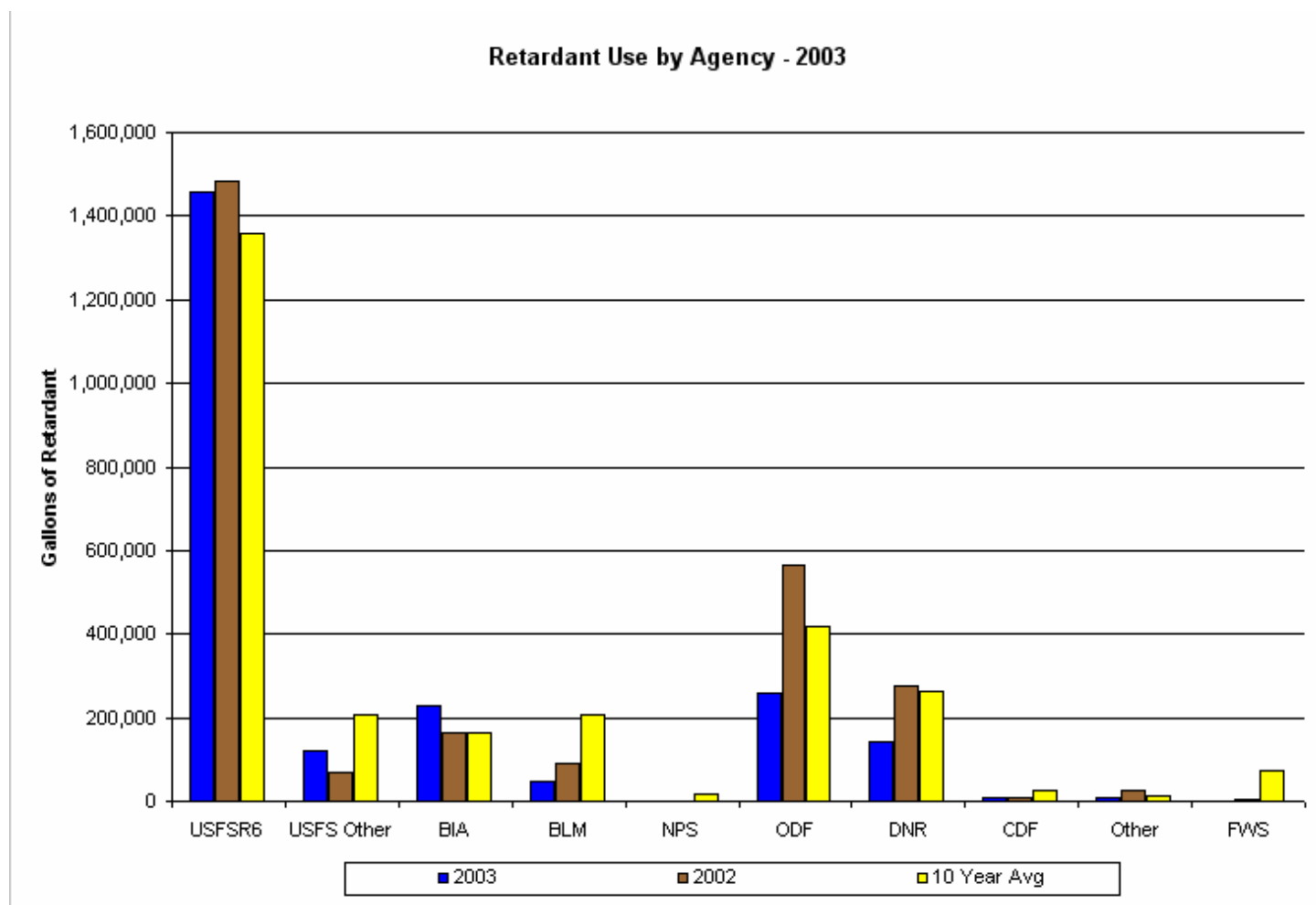
Hazardous Fuels Summary

Hazardous Fuels Treatment Totals for FY2003 (Includes Fire Use Acres) Data from the NFPORS site

Agency	Unit	Number	Acres	Agency	Unit	Number	Acres
BIA	WA-COA	13	1,335	NPS	WA-CLP	2	383
BIA	WA-OPA	0	0	NPS	WA-NCP	13	3,958
BIA	WA-PSA	1	3	NPS	WA-MRP	0	0
BIA	WA-SPA	30	5,588	NPS	WA-OLP	6	25
BIA	WA-QNT	0	0	NPS	OR-JDP	0	0
BIA	OR-WSA	27	5,120	NPS	WA-LRP	9	286
BIA	OR-UMA	2	63	NPS	WA-SJP	0	0
BIA	WA-YAA	8	1,011		TOTAL	30	4,652
	TOTAL	81	13,120	USFS	OR-DEF	529	21,891
BLM	OR-BUD			USFS	OR-FEF	26	15,020
BLM	OR-CBD			USFS	OR-MAF	191	15,068
BLM	OR-EUD			USFS	OR-MHF	3	307
BLM	OR-LAD			USFS	OR-OCF	28	2,569
BLM	OR-MED			USFS	OR-RRF	88	3,355
BLM	OR-PRD			USFS	OR-SIF	86	2,586
BLM	OR-ROD			USFS	OR-SUF	5	120
BLM	OR-SAD			USFS	OR_UMF	61	13509
BLM	WA-SPD			USFS	OR-UPF	18	548
BLM	OR-VAD			USFS	OR-WIF	14	181
	TOTAL	777	94,061	USFS	OR- WWF	214	20602
FWS	OR-BKR	9	182	USFS	OR-WNF	122	4845
FWS	OR_SHR	7	5,538	USFS	WA-COF	15	1,365
FWS	OR-MAR	5	5,187	USFS	WA-GPF	8	46
FWS	OR_MKR	0	0	USFS	WA-MSF	0	0
FWS	UMR	4	171	USFS	WA- OWF	185	14906
FWS	OR_WMR	14	538	USFS	WA-OLF	0	0
FWS	OR-LKR	8	7,338		Total	1,593	116,918
FWS	WA-CBR	23	3,625	All			
FWS	WA-HFR	7	1,119	Agencies	Total	2,606	255,654
FWS	WA_LPR	16	1,396				
FWS	WA_MNR	2	26				
FWS	WA_TBR	29	1,774				
FWS	WA_TPR	1	9				
	Total	125	26,903				

Pacific Northwest Area Annual Fire Report – 2003 Heavy Airtanker Program Summary

year	USFSR6	USFS Other	BIA	BLM	NPS	ODF	DNR	CDF	Other	FWS
1988	1,234,334	0	246,351	434,573	227,775	822,007	356,092	0	109,184	0
1989	829,724	240,349	133,727	18,140	38,520	165,300	129,000	68,064	0	0
1990	2,225,247	21,572	81,053	53,982	46,652	509,438	237,018	22,160	13,246	0
1991	1,330,124	67,482	36,450	39,891	0	401,781	133,532	34,575	29,402	0
1992	2,733,283	101,408	268,847	74,783	14,712	1,244,034	231,904	111,735	14,702	0
1993	246,934	13,392	17,356	0	0	158,111	35,890	10,801	2,450	5,450
1994	4,502,343	278,036	192,499	217,978	136,871	1,249,172	286,035	50,352	5,432	157,183
1995	688,721	39,745	15,260	34,713	14,879	205,822	33,551	30,340	2,215	0
1996	2,594,482	230,318	287,753	348,009	2,758	244,835	75,991	19,687	23,399	0
1997	316,191	48,708	43,081	52,807	2,737	135,354	29,928	22,973	0	57,312
1998	964,979	212,763	116,066	245,757	0	110,840	368,496	9,420	0	88,534
1999	96,229	557,823	237,384	110,937	0	189,800	215,414	45,971	5,331	148,204
2000	1,140,785	194,094	264,563	443,517	0	302,738	411,651	21,133	59,287	211,287
2001	1,562,032	437,467	292,116	525,083	28,617	1,020,414	907,942	45,763	10,578	46,308
2002	1,484,531	67,050	165,283	92,051	1,795	563,646	274,318	9,375	27,231	5,937
2003	1,456,671	120,778	229,872	47,001	0	258,883	144,455	8,346	7,083	0
10YearTotal	14,806,964	2,186,782	1,843,877	2,117,853	187,657	4,281,504	2,747,781	263,360	140,556	714,765
10YrAverage	1,359,723	207,940	163,136	207,085	18,766	418,073	263,922	26,582	13,592	72,022
%use	64%	5%	10%	2%	0%	11%	6%	0%	0%	0%
03 use as % of 10yr Avg	107%	58%	141%	23%	0%	62%	55%	31%	52%	0%



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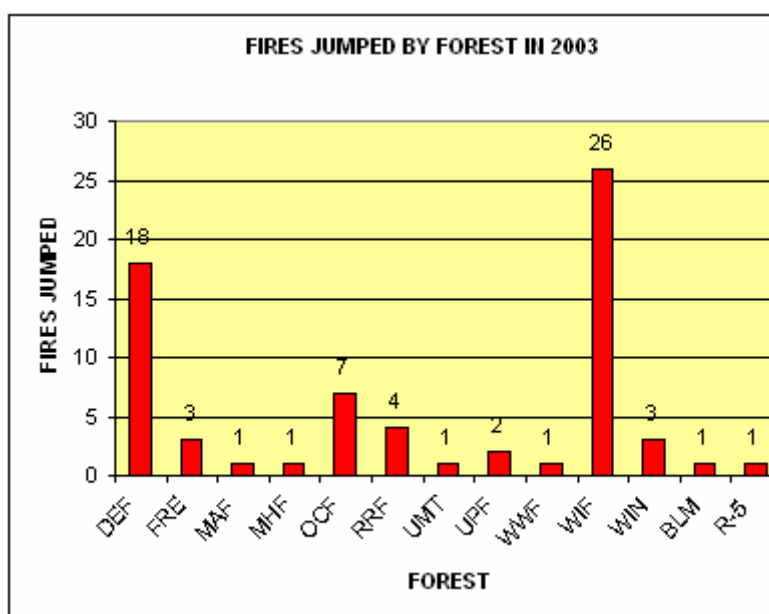
Rappeller Summary

	Frazier	Merlin	Sled Spgs	Wenatchee Valley	Wenatchee Valley	Wenatchee Valley	John Day	John Day	Totals
A/C Type	ASTAR	B407	B205A1	ASTAR	B206L3	B205A+	B206L4	B205A1	
Duration Days	110	135	133	138	135	60	122	102	935
Crew Size	16	13	15			26		21	91
Hours Total	124.8	179.5	166.5	256.2	378.6	354.3	155.0	351.6	1966.5
Hours Fire Mgt	111	179.5	162.5	256.2	378.6	354.3	149.9	351.6	1943.6
Passengers	580	755	1,396	630	954	2,726	826	2,838	10,705
Gallons Foam/Water	28,630	30,745	39,284	85,596	39,931	355,922	29,403	387,786	997,297
Pounds Cargo Internal	33,720	25,745	110,510	221,503	81,372	240,426	10,526	211,819	935,621
Pounds Cargo External	4,641	21,245	44,350	76,508	49,263	191,551	32,672		420,230
Initial Attacks	24	26	21	22	4	3	39	8	147
Operational Rappels	32	45	46	127	NA	52	65	15	382
Person Days/Heli Fires	48	64	62	12	4	70	71	0	331
Person Days/Rap Fires	100	107	82	64		1,664	202	36	2,255
Person Days/Lg Fire Support	64	360	685	405	672	17	26	1,632	3,861
Person Days/Rx Fires	4	2	30	0	0	0	0	0	36

Smokejumper Summary – Redmond

Given the adverse fire conditions to contend with the Redmond Smokejumper Unit had an extraordinary accomplishment record in 2003. A 100% success rate was achieved in the containment of all initial attacked wildfires jumped and commanded by jumpers dispatched out of Redmond and there were no jump or fire related lost time injuries.

The Willamette benefited the most from our program. The dispatch center on the Willamette recorded 116 fires for the season. Smokejumpers dispatched out of Redmond successfully jumped and contained 26 of the 116 fires, 23% of the Willamette's fires. The largest fire contained by Redmond jumpers on the Willamette was 30 acres.

**Summary of Boosters Received By Base:**

	McCall	Redding	NCSB	Missoula	Grangeville	Totals
Boosters In	18	43	10	17	28	116
Combined Days	204	260	50	75	192	781

Summary Of Redmond Jumpers Sent As Boosters In Support of Other Bases:

	Missoula	Redding	NCSB	Totals
Boosted Out	10	20	22	52
Number of Days	20	16	6	418

Summary Of Overhead Assignments Filled Through Central Oregon Dispatch:Position	ICT3	TFLD	HEGM	DOZB	FELB	DIVS	ATGS	Total
Assign.	3	3	2	9	4	3	5	29
Trainee		2		2	1			5

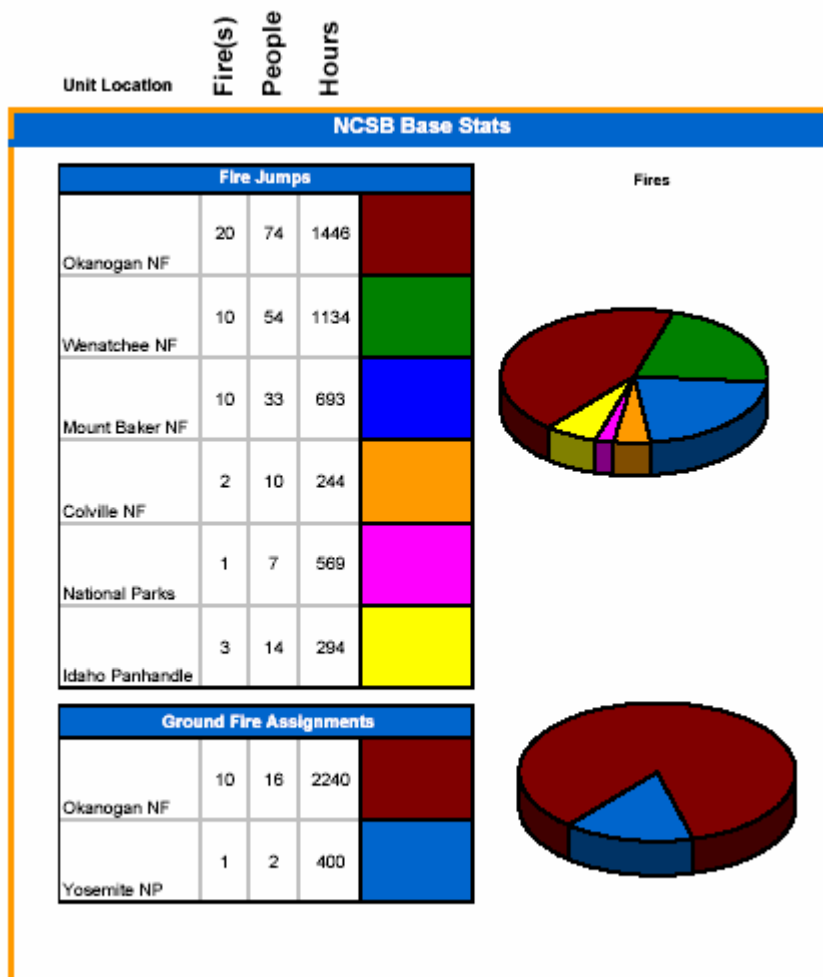
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Smokeyumper Summary – North Cascades

The 2003 fire season was just below the 10 year average for fires but large fire activity in the Washington area kept the season busy for the smokejumpers at NCSB.

Some highlights of the season were:

- No injuries this season with 222 fire jumps and 476 practice jumps for a total of 698 jumps.
- John Button and Matt Woosley supported the Regional ATGS platform at Wenatchee as Air Tactical Group Supervisors.
- Continued involvement with APHIS in Chicago.
- No aviation accidents or incidents.
- Participation with a Fire Use Module from California with 2 smokejumpers working on WFU fires in Yosemite National Park
- Overhead assignments in Washington, Oregon, Idaho and California.
- Continuing education and training in fire suppression and prescribed fire, both as instructors and students.



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Interagency Hotshot Crew Summary

CENTER/OFFICE	CREW	Days on WildFire/WFU assignment in the PNW	Days on WildFire/WFU Assignment Outside the PNW	Total Days
OR-COC	REDMOND	58	41	99
	OCHOCO	77	16	93
OR-KFC	WINEMA			
OR-MIC	ROGUE	85	17	102
OR-NOC	UNION	67	41	108
	LAGRANDE	106	11	117
WA-CWC	ENTIAT	102	12	114
WA-PSIC	BAKER			
	RIVER	67	34	101
OR-VALE	VALE	71	32	103
OR-UPF	WOLF CR	32	6	38
OR-MHF	ZIGZAG	72	5	77
OR-WSA	WARMSPGS			107
TOTALS		737	215	1,059

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Northwest Coordination Center Summary
Inside PNW Aircraft Requests

	USFS	BLM	NPS	OR-ORS	WA-WAS	NO AGENCY ID	USFWS	TOTAL AIRCRAFT REQUESTS	TOTAL ITEMS REQUESTED
AIRTANKER									
T1	7			3				10	20
T2	2							2	2
T4	20	20		1				41	59
T1 OR 2	31	7	1	4	2			45	110
SEAT	3							3	4
TOTAL	63	27	1	8	2	19		120	195
HELICOPTERS									
T1_STANDARD				3	1			4	7
T2_STANDARD	33	5	2	5	1	13		59	117
T3_STANDARD	130	27	10	13		18	3	201	281
T1_LIMITED	18		1			4		23	73
T2_LIMITED	12	1	3	1		3		20	30
T3_LIMITED				1		1		2	3
INFRARED FLT	2							2	2
TOTAL	195	33	16	23	2	39	3	311	513
FIXED WING	110	10	2	17	3	32		174	377
FREQUENCY	43	0	0	0	3	10		56	95
A/C SERVICES									
INFRARED FLT	18					4		22	158
MOBILE BASE	3							3	3
TFR	6	2		1		2		11	13
TEMP TOWER	1							1	1
TOTAL	28	2	0	1	0	6		37	175
NO ITEM ID								437	0
GRAND TOTAL								1,135	1,355

Crew Requests - 2003

	USFS	BLM	NPS	OR-ORS	WA-WAS	NO AGENCY ID	USFWS	BIA	TOTAL CREW REQUESTS	TOTAL ITEMS REQUESTED
CREWS										
TYPE1	27	2	0	2	1	4	0	0	36	397
TYPE2	98	17	4	9	10	19	0	0	157	851
TYPE2IA	24	0	4	0	0	0	0	0	28	80
TYPE3	5	0	1	1	1	0	0	0	8	23
ANYTYPE	68	1	2	10	7	4	0	0	92	195
CAMP	17	0	0	0	4	7	0	0	28	98
TOTALS	239	20	11	22	23	34	0	0	349	1644

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Northwest Coordination Center Summary

Inside PNW Overhead requests

Overhead Requests		
AGENCY	OH REQUESTS	OH ITEMS FILLED
USFS	3,453	7,600
BLM	137	179
NPS	190	320
WA_DNR	508	593
FWS	13	37
OR_ORIS	138	178
NO ID	933	1,844
TOTALS	5,372	10,751

Inside PNW Equipment Summary

	USFS	BLM	OR-ORS	WA-WAS	FWS	NPS	NO AGENCY ID	TOTAL REQS	TOTAL ITEMS
Equipment									
Engines									
TYPE1	9	0	1	1	0	0	3	14	9
TYPE2	3	0	1	1	0	0	2	7	1
TYPE3	69	4	4	2	0	2	4	85	111
TYPE4	65	35	17	0	0	1	11	129	256
TYPE5	39	8	21	4	0	0	5	77	122
TYPE6	247	121	93	35	0	2	25	523	1,445
TYPE7	2	0	0	9	0	0	1	12	11
ANYTYPE	131	1	39	6	1	0	10	188	456
T3,4,5,6	72	20	11	12	0	1	19	135	541
TOTAL	637	189	187	70	1	6	80	1,170	2,952

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Summary of Resources Sent Out of the PNW

Out of Area Aircraft Requests									
	East Gt Basin	NorthOps	North Rockies	Rocky Mtn	SouthOps	SWArea	West Gt Basin	TOTAL AIRCRAFT REQUESTS	TOTAL ITEMS REQUESTED
AIRTANKER									
T1						8		8	
T2	1		1		1			3	
T4								0	
T1 OR 2	2	3	6		4	13	1	29	
SEAT	2					5		7	
TOTAL	5	3	7	0	5	26	1	47	62
HELICOPTERS									
T1_LIMITED						3		3	
T2_STANDARD			1					1	
T3_STANDARD	4	1	9	1		11		26	
T4_STANDARD	1							1	
TOTAL	5	1	10	1	0	14	0	31	35
FIXED WING									
Tactical	1	1	1					3	
Lead		1			1	8		10	
Passenger	1		1			1		3	
TOTAL	2	2	2	0	1	9	0	16	18
GND TOTAL	12	6	19	1	6	49	1	94	115

Out of Area Crew Requests									
	East Gt Basin	NorthOps	North Rockies	Rocky Mtn	SouthOps	SWArea	West Gt Basin	TOTAL CREW REQUESTS	TOTAL CREWS REQUESTED
CREWS									
TYPE 1	0	3	0	2	1	11	2	19	31
T 1 OR T 2 IA	0	1	2	0	1	0	0	4	105
TYPE 2	41	14	59	7	0	3	3	127	436
TYPE 2 IA	3	1	29	2	0	0	1	36	46
T 2 IA OR T 2	17	4	10	1	3	0	0	35	122
TYPE 3	0	0	0	0	0	0	0	0	0
ANY TYPE	1	1	0	0	0	0	0	2	3
CAMP	0	0	8	0	0	0	0	8	10
TOTAL	62	24	108	12	5	14	6	231	753

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Summary of Resources Sent Out of the PNW

Out of Area Engine Requests									
	East Gt Basin	NorthOps	North Rockies	Rocky Mtn	SouthOps	SWArea	West Gt Basin	TOTAL EQUIPMENT REQUESTS	TOTAL ITEMS REQUESTED
Equipment									
Engines									
TYPE1								0	0
TYPE2								0	0
TYPE3		1	6		5			12	28
TYPE4	5		6		2		1	14	48
TYPE5		1						1	2
TYPE6	1		33			1		35	144
TYPE7								0	0
ANYTYPE		7	1					8	26
T3,4,5,6	1	17	9	1				28	105
TOTAL	7	26	55	1	7	1	1	98	353

Out of Area Overhead Requests											
NICC	East Gt Basin	NorthOps	North Rockies	Rocky Mtn	SouthOps	SWArea	West Gt Basin	Alaska	Southern Area	TOTAL OVERHEAD REQUESTS	TOTAL OVERHEAD REQUESTED
16	118	73	697	58	196	189	7	5	13	1,372	2,911

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USFS Land Ownership Summary

FS Ownership and Protection Report - 2003									
	State and Private Lands including county and municipal				Other Federal Lands	National Forest	Total	S&P - FS and State Protection	NF Lands Protected by Others
DEF/OCF	0	0	0	0	42,442	2,336,405	2,378,847	0	64,000
FRF	0	0	0	0	0	1,201,080	1,201,080	0	0
MAF	0	10,095	0	0	4,522	1,698,450	1,713,067	0	10,267
MHF	0	0	0	0	0	1,066,412	1,066,412	0	0
RRF	0	0	0	0	0	574,244	574,244	0	0
SIF	0	0	0	0	466	1,060,749	1,061,215	0	0
SUF	0	0	0	0	0	630,000	630,000	0	0
UMF	0	0	0	0	32,057	1,095,028	1,127,085	0	0
UPF	0	0	0	0	0	983,127	983,127	44,243	0
WWF	0	0	0	0	0	2,263,846	2,263,846	0	0
WIF	0	0	0	0	0	1,677,929	1,677,929	0	0
WNF	0	0	0	0	0	1,045,391	1,045,391	0	0
CRG	0	0	0	0	0	43,771	43,771	118,648	0
SubTotal	0	10,095	0	0	79,487	15,676,432	15,766,014	162,891	74,267
Washington									
COF	0	0	0	0	42,977	1,096,020	1,138,997	0	0
GPF	0	0	0	0	167	1,391,000	1,391,167	87,725	83,011
MSF	0	0	0	0	0	1,730,919	1,730,919		
OLF	0	0	0	0	0	361,021	361,021	21,796	274,126
OWF	0	49,089	0	0	76,800	3,976,174	4,102,063	300,800	0
UMF	0	0	0	0	617	311,197	311,814	0	0
CRG	0	0	0	0	3,460	33,358	36,818	79,638	0
SubTotal	0	49,089	0	0	124,021	8,899,689	9,072,799	489,959	357,137
California									
RRF	0	7,224	0	0	0	53,796	61,020	0	0
SIF	6,314	0	0	0	0	33,260	39,574	0	0
Idaho									
WWF	0	0	0	0	0	147,165	147,165	0	0
SubTotal	6,314	7,224	0	0	0	234,221	247,759	0	0
Grand Total	6,314	66,408	0	0	203,508	24,810,342	25,086,572	652,850	431,404

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USFS Employment Summary

Personnel Employed on Wildfire - 2003			
Pre Suppression and Suppression Activities			
Item #	Item Description	Subtotal	Total
1a	Regular Appointed Personnel - FTE	405	
1b	Part Time Fire Mgt	435	
1c	Others used in presuppression	415	
1d	Others used in suppression	1,180	
1e	Total 1a - 1d		2,435
2a	Seasonal or short term personnel	1,165	
2b	Others(BD,KV,BR,R&T) on fires	369	
2c	Emergency Fire Fighters (not 2a or b)	2,571	
2d	Total 2a - 2c		4,105
3	Total number of casuals employed on fires		845
4	Number of casuals from 3 employed for the first time	307	
5	Grand Total 1e+2d+3		7,385

USFS Employment Summary by Forest

	1A	1B	1C	1D	total	2A	2B	2C	total	3	4	GndTotal
DEF/OCF	26	37	15	20	98	69	20	1	90	300	30	488
FRF	15	26	19	19	79	56	18	0	74	25	1	178
MAF	75	0	0	25	100	80	20	0	100	5	0	205
MHF	12	26	7	44	89	47	33	0	80	60	16	229
RRF/SIF	17	23	8	74	122	91	29	31	151	0	0	273
SUF	7	5	12	52	76	22	4	0	26	19	8	121
UMF	18	35	10	4	67	113	6	35	154	6	0	227
UPF	20	55	47	566	688	113	31	2,061	2,205	171	98	3,064
WWF	40	54	0	0	94	155	0	30	185	20	0	299
WIF	31	20	60	143	254	90	1	16	107	110	30	471
WNF	12	11	3	0	26	28	0	0	28	4	0	58
COF	35	30	30	30	125	15	20	270	305	0	70	430
GPF	9	9	7	35	60	32	20	12	64	69	13	193
MSF	8	14	6	42	70	16	20	0	36	37	8	143
OLF	33	1	5	5	44	4	0	0	4	16	5	64
OWF	45	85	186	121	437	225	117	101	443	0	24	880
CRG	2	4	0	0	6	9	30	14	53	0	0	59
GndTotal	405	435	415	1,180	2,435	1,165	369	2,571	4,105	845	307	7,385

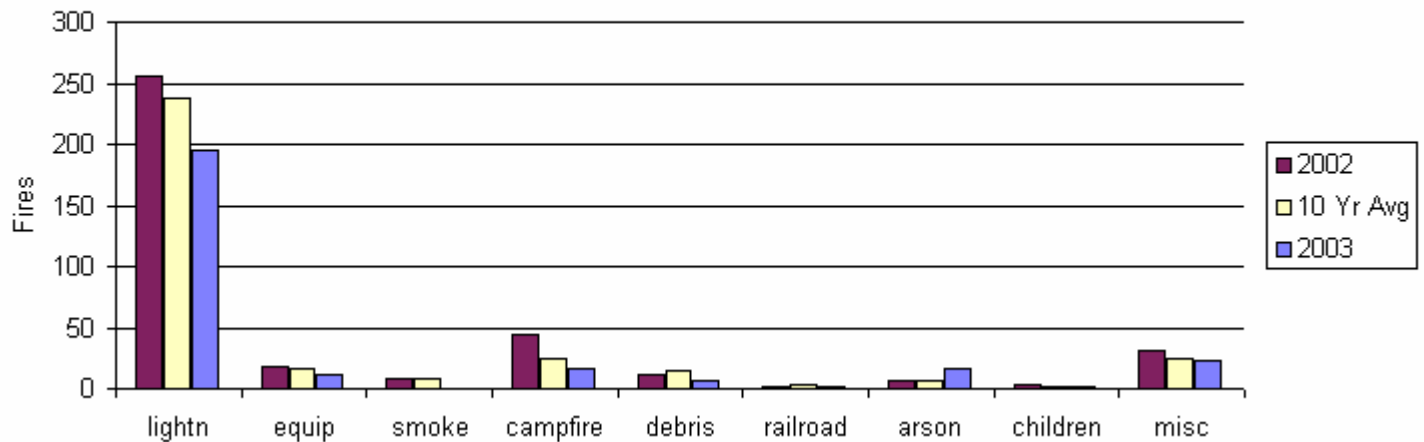
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A Summary of Fires and Acres by Statistical Cause

Bureau of Land Management

2003 Fires and Acres by Cause - BLM										
		Lightning	Equipment	Smoking	Campfire	Debris Burn	Railroad	Arson	Children	Misc.
	Fires	195	12	0	17	7	2	17	2	23
	% of 10 Yr Avg Fires	82%	71%	0%	71%	49%	65%	233%	87%	96%
	Acres	10,460	4,470	0	29	29	0	926	460	710
	% of 10 Yr Avg Acres	9%	96%	0%	2%	1%	0%	65%	162%	5%

Fires by Statistical Cause - BLM Lands Only

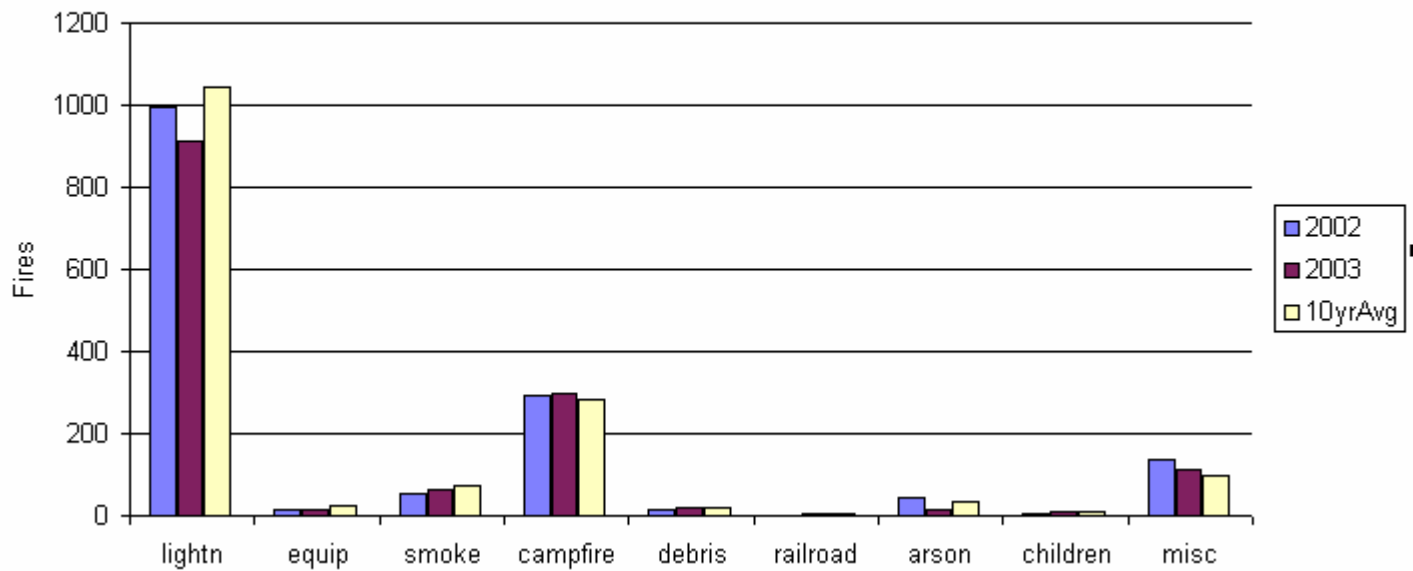


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US Forest Service

2003 Fires and Acres by Cause - USFS										
		Lightning	Equipment	Smoking	Campfire	Debris Burn	Railroad	Arson	Children	Misc.
	Fires	911	17	64	297	18	5	15	9	111
	% of 10 Yr Avg Fires	87%	77%	87%	105%	90%	122%	42%	110%	116%
	Acres	227,794	13	502	1,700	98	114	17	21,135	12,596
	% of 10 Yr Avg Acres	156%	2%	20%	32%	37%	26%	2%	14446%	357%

Fires by Statistical Cause - USFS Lands Only

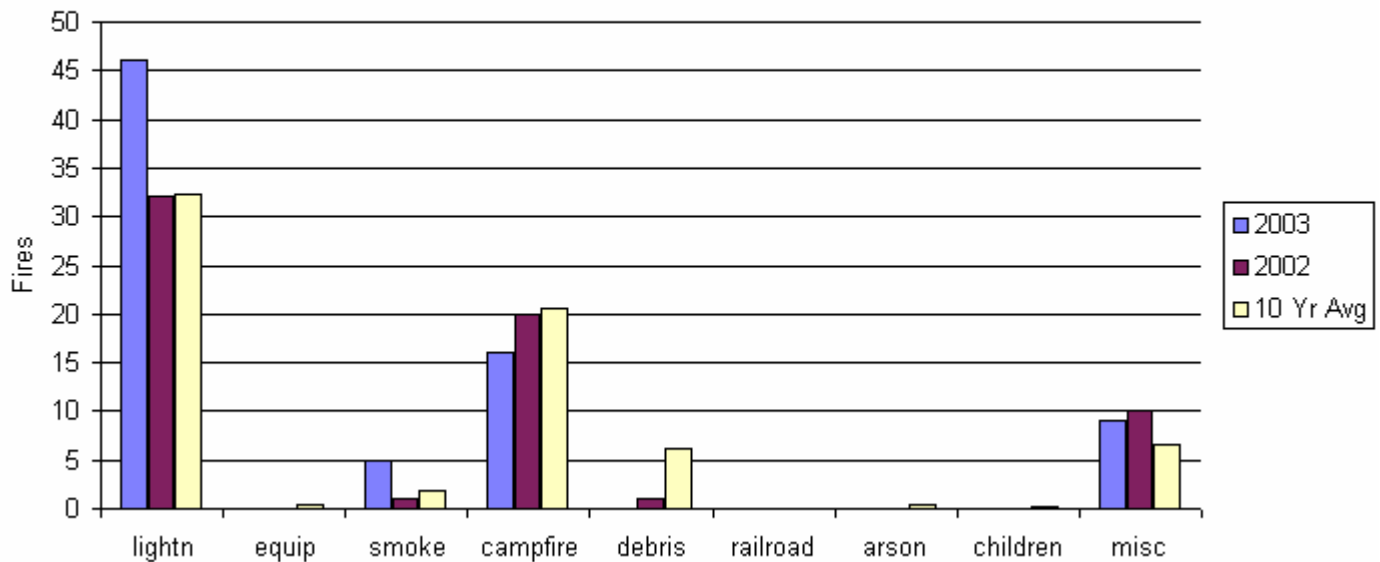


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National Park Service

2003 Fires and Acres by Cause - NPS											
		Lightning	Equipment	Smoking	Campfire	Debris Burn	Railroad	Arson	Children	Misc.	
	Fires	46	0	5	16	0	0	0	0	9	
	% of 10 Yr Avg Fires	142%	0%	263%	78%	0%	0%	0%	0%	138%	
	Acres	4,756	0	0	20	0	0	0	0	310	
	% of 10 Yr Avg Acres	808%	0%	0%	889%	0%	0%	0%	0%	155%	

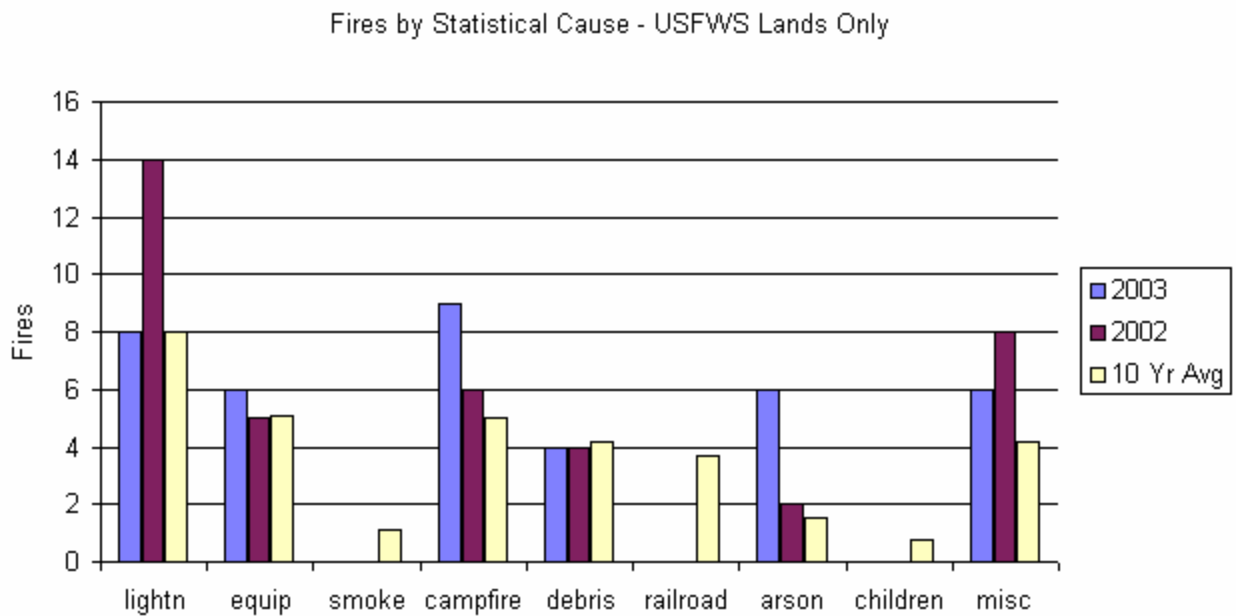
Fires by Statistical Cause - NPS Lands Only



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US Fish and Wildlife Service

2003 Fires and Acres by Cause - USFWS										
		Lightning	Equipment	Smoking	Campfire	Debris Burn	Railroad	Arson	Children	Misc.
	Fires	8	6	0	9	4	0	6	0	6
	% of 10 Yr Avg Fires	100%	118%	0%	180%	95%	0%	400%	0%	143%
	Acres	4	336	0	0	432	0	4	0	517
	% of 10 Yr Avg Acres	0%	640%	0%	0%	294%	0%	35%	0%	319%

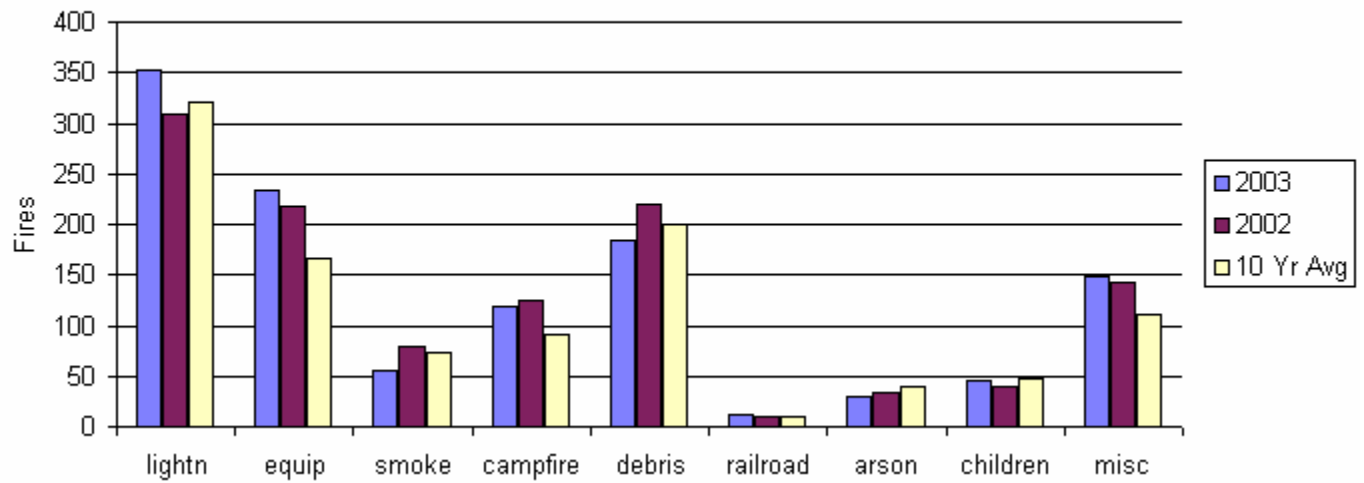


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Oregon State

2003 Fires and Acres by Cause - OR-ORS										
		Lightning	Equipment	Smoking	Campfire	Debris Burn	Railroad	Arson	Children	Misc.
	Fires	353	233	56	118	185	11	29	45	148
	% of 10 Yr Avg Fires	110%	139%	77%	129%	93%	118%	74%	93%	134%
	Acres	4,015	1,074	51	224	2,300	585	36	226	835
	% of 10 Yr Avg Acres	24%	41%	29%	74%	113%	697%	3%	162%	239%

Fires by Statistical Cause - OR-ODF Lands Only



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Large Fires 2003 (Greater than 100/300 acres or Type 2 Team)

63 large fires were reported to NWC via ICS-209.

5 Type 1 Incident Management Teams were committed. 41 Type 2 IMTs were committed.

Area Command (Greenhoe) was established in Central Oregon for 8 days.

Estimated suppression costs for these fires total \$193,526,336

The PNW Area was in Preparedness Level 4 for 37 days between 7/21-8/4 and 8/18-9/8.

StartDate	Unit	Fire Name	Cause	Acres	Cost_209
6/18/2003	OR-WIF	BEAR LAKE	LIGHTNING	30	\$261,071
6/27/2003	OR-ORS	SULPHER CREEK	UKN	650	\$1,149,242
6/27/2003	WA-YAA	AHTANUM RIDGE	HUMAN	2,678	\$50,000
6/28/2003	OR-DEF	DAVIS	UKN	21,181	\$5,643,555
6/29/2003	OR-71S	DAISEY HILL RD.	INV.	112	\$130,000
6/29/2003	OR-UMF	WILLOW	HUMAN	120	\$548,000
6/29/2003	WA-OWF	FAWN PEAK	LIGHTNING	81,343	\$39,790,496
6/30/2003	WA-COA	TIMBERLINE	UI	168	\$151,886
6/30/2003	WA-NES	NINE MILE	HUMAN	1,500	\$200,000
7/3/2003	OR-PRD	INDEPENDENCE	HUMAN	400	\$125,000
7/4/2003	WA-COA	RATTLESNAKE	HUMAN	10,560	\$4,510,000
7/4/2003	WA-SPA	PADDLE	HUMAN	1,324	\$1,025,778
7/5/2003	OR-DEF	LINK	UI	3,583	\$6,119,073
7/7/2003	OR-ORS	POWELL CR	UI	262	\$720,000
7/8/2003	OR-MAF	BIG RIDGE	LIGHTNING	140	\$25,000
7/10/2003	WA-SES	OLD NACHES	UI	1,660	\$67,000
7/11/2003	WA-SES	MIDDLE FORK	UI	2,100	\$2,700,000
7/12/2003	OR-ORS	JENKINS CABIN	UI	772	\$1,163,000
7/13/2003	OR-WIF	CLARK	UI	4,964	\$14,651,840
7/13/2003	WA-WFS	AVERY	HUMAN	800	\$0
7/16/2003	WA-SPD	SHOOTING RANGE	UI	2,500	\$0
7/16/2003	WA-WFS	CRESTVIEW	UI	200	\$0
7/18/2003	WA-COA	MCGINNIS FLATS	HUMAN	2,245	\$4,693,025
7/18/2003	WA-WAS	ELEPHANT HEAD	HUMAN	270	\$42,000
7/20/2003	OR-VAD	SAGE	LIGHTNING	493	\$104,993
7/20/2003	WA-WAS	WATT ROAD	HUMAN	1,064	\$1,186,000
7/23/2003	OR-DEF	18 FIRE	HUMAN	3,809	\$1,434,301
7/27/2003	OR-UPF	KELSAY	LIGHTNING	1,204	\$3,335,000
7/27/2003	WA-SPD	HATTEN RD	UI	5,460	\$0
7/28/2003	OR-ORS	FROG HOLLOW	LIGHTNING	752	\$1,500,000
7/28/2003	OR-VAD	CHERRY CREEK	UI	369	\$81,896
7/28/2003	WA-WAS	AYERS GULCH	UI	1,334	\$0
7/28/2003	WA-WFS	HIGHWAY10	UI	200	\$0
7/29/2003	OR-BUD	CECIL	LIGHTNING	168	\$280,000
7/29/2003	WA-SPD	MANASTASH	UI	200	\$0
8/5/2003	WA-MRP	MT RAINIER CPLX	LIGHTNING	374	\$1,772,739
8/5/2003	WA-OWF	MAPLE	LIGHTNING	2,500	\$3,313,000
8/5/2003	WA-NCP	NOCA CPLX	LIGHTNING	3,382	\$200,000
8/6/2003	WA-MSF	GLACIER PK CPLX	LIGHTNING	704	\$191,588

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8/6/2003	WA-MSF	MINERAL PARK	LIGHTNING	3,651	\$81,000
8/6/2003	WA-SPD	JUNIPER DUNES NORTH ZONE	LIGHTNING	5,200	\$150,000
8/6/2003	WA-MSF	COMPLEX	LIGHTNING	172	\$3,300,000
8/8/2003	WA-OWF	SQUARE LAKE	LIGHTNING	1,097	\$1,724,000
8/9/2003	OR-ORS	HELLS HALF ACRE	UI	465	\$1,241,808
8/10/2003	WA-NES	BLACK CANYON	N/A	2,280	\$5,774,000
8/11/2003	WA-GPF	LOST LAKE	LIGHTNING	321	\$56,640
8/15/2003	WA-COF	TOGO	LIGHTNING	5,285	\$7,900,000
8/15/2003	OR-ORS	CLOVER CREEK	UI	327	\$940,000
8/16/2003	OR-WNF	HAGELSTEIN	HUMAN	453	\$300,000
8/19/2003	OR-VAD	ROOSTER COMB	LIGHTNING	1,200	\$180,698
8/19/2003	OR-DEF	B&B CPLX	LIGHTNING	90,769	\$41,198,000
8/19/2003	OR-VAD	BIRCH CREEK RIM	LIGHTNING	750	\$133,927
8/21/2003	WA-OWF	WILCOX	LIGHTNING	440	\$1,669,000
8/25/2003	WA-COA	JOHNSON LAKE	UI	387	\$142,094
9/2/2003	OR-CGF	HERMAN	UI	370	\$3,300,000
9/2/2003	OR-WWF	LIGHTNING COMPLEX	LIGHTNING	16,028	\$2,864,986
9/5/2003	OR-9711	9-05 Complex	LIGHTNING	675	\$400,000
9/4/2003	WA-OWF	NEEDLE	LIGHTNING	21,300	\$11,603,000
9/5/2003	WA-NES	BULL DOG	HUMAN	411	\$646,000
9/6/2003	WA-OLP	GRIFF	LIGHTNING	795	\$408,000
9/4/2003	OR-UMF	BULL SPRINGS 2	UI	1,266	\$1,800,000
9/8/2003	WA-OWF	ISABEL	LIGHTNING	4,535	\$8,067,700
9/24/2003	WA-OWF	CRYSTAL CREEK	LIGHTNING	1,584	\$2,727,000
		TOTALS		321,336	\$193,773,336

